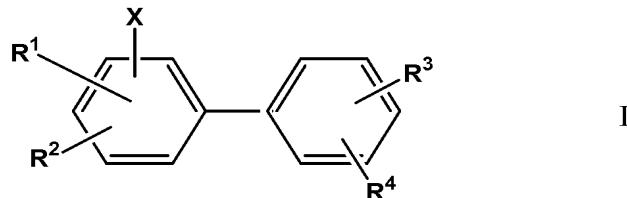


This listing of claims will replace all prior versions, and listings, of claims in the application.

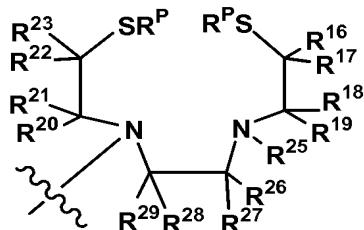
Listing of Claims:

1. (Previously Presented) A compound of general Formula I:



or a pharmaceutically acceptable salt thereof, wherein

R^1 , R^2 and R^3 in each instance is independently selected from the group consisting of hydrogen, halogen, C_{1-5} alkyl, cyano, carboxy(C_{1-5})alkyl, trifluoromethyl, nitro, methylamino, dimethylamino, halo(C_{1-5})alkyl, hydroxy(C_{1-5})alkyl, $(Bu)_3Sn-$, $(Bu)_3Sn(C_{1-5})alkyl$, formyl, and the tetradeятate metal ligand moiety having the following formula:



wherein,

R^4 is selected from the group consisting of:

- a. C_{1-5} alkylthio,
- b. halo(C_{1-5})alkyl,
- c. halo(C_{1-5})alkoxy,
- d. carboxy(C_{1-5})alkyl,
- e. hydroxy,
- f. C_{1-5} alkoxy,
- g. hydroxy(C_{1-5})alkyl,

h. NR^5R^6 , wherein

R^5 and R^6 are independently hydrogen, halo(C_{1-5})alkyl or C_{1-5} alkyl,

i. phenyl(C_{1-5})alkyl,

j. C_{6-10} aryl,

k. heteroaryl,

l. heterocycle,

m. heterocycle(C_{1-5})alkyl, and

n. C_{3-6} cycloalkyl,

wherein said phenyl(C_{1-5})alkyl, C_{6-10} aryl, heteroaryl, heterocycle, heterocycle(C_{1-5})alkyl or C_{3-6} cycloalkyl is substituted with one of the following: C_{1-5} alkylthio, C_{1-5} alkylsulfonyl, methoxy, hydroxy, dimethylamino or methylamino,

R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{25} , R^{26} , R^{27} , R^{28} and R^{29} are independently selected from the group consisting of hydrogen, halogen, C_{1-5} alkyl, cyano, carboxy(C_{1-5})alkyl, hydroxy(C_{1-5})alkyl, trifluoromethyl, nitro, methylamino, dimethylamino, halo(C_{1-5})alkyl, phenyl(C_{1-5})alkyl, C_{3-6} cycloalkyl, heterocycle (C_{1-5})alkyl and carbonyl, and R^P is a sulphydryl protecting group,

and,

X is hydrogen, ^{125}I , ^{123}I , ^{131}I , ^{18}F , ^{76}Br , ^{77}Br or $Sn(alkyl)_3$.

2. (Original) A compound of claim 1, wherein

R^1 , R^2 and R^3 are hydrogen or C_{1-5} alkyl.

3. (Original) A compound of claim 2, wherein

R^1 , R^2 and R^3 are hydrogen,

and,

R^4 is halo(C_{1-5})alkyl, hydroxy, C_{1-5} alkoxy or NR^5R^6 , wherein

R^5 and R^6 are independently hydrogen, halo(C_{1-5})alkyl or C_{1-5} alkyl.

4. (Original) A compound of claim 3, wherein

R^4 is NR^5R^6 , wherein

R^5 and R^6 are independently hydrogen, halo(C_{1-5})alkyl or C_{1-5} alkyl.

5. (Original) A compound of claim 1, wherein
 X is ^{123}I or ^{18}F .

6. (Original) The compound of claim 1, wherein
 R^1 is methylamino or dimethylamino,
 R^2 is hydrogen,
 R^3 is halo(C_{1-5})alkyl or $(Bu_3Sn(C_{1-5})alkyl$,
 R^4 is hydroxy or hydroxy(C_{1-5})alkyl,

and,

X is hydrogen.

7. (Original) The compound of claim 6, wherein
 R^1 is dimethylamino,
 R^3 is ^{18}F luoro(C_{1-5})alkyl,

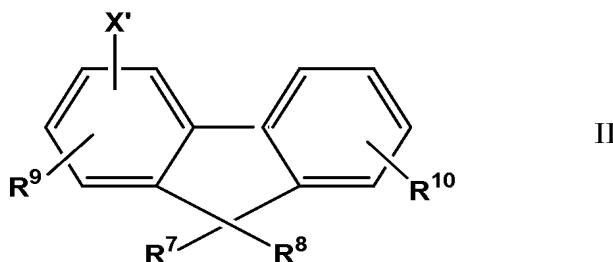
and,

R^4 is hydroxy.

8. (Original) The compound of claim 7, wherein
 R^3 is ^{18}F luoromethyl or ^{18}F luoroethyl.

9. (Original) The compound of claim 8, wherein
 R^3 is ^{18}F luoroethyl.

10. (Previously Presented) A compound of general Formula II



or a pharmaceutically acceptable salt thereof, wherein:

R⁹ and R¹⁰ in each instance is independently selected from the group consisting of:

- a. hydrogen,
- b. C₁₋₅ alkyl,
- c. cyano,
- d. trifluoromethyl,
- e. nitro,
- f. halogen,
- g. hydroxy(C₁₋₅)alkyl,
- h. halo(C₁₋₅)alkyl,
- i. C₁₋₅ alkylthio,
- j. halo(C₁₋₅)alkoxy,
- k. carboxy(C₁₋₅)alkyl,
- l. hydroxy,
- m. C₁₋₅ alkoxy,
- n. NR¹¹R¹², wherein

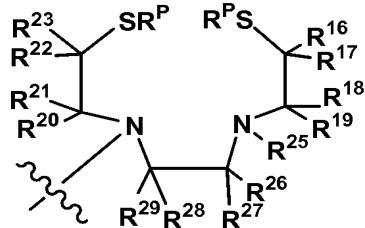
R¹¹ and R¹² are independently hydrogen, halo(C₁₋₅)alkyl or C₁₋₅ alkyl,

- o. phenyl(C₁₋₅)alkyl,
- p. C₆₋₁₀ aryl,
- q. heteroaryl,
- r. heterocycle,
- s. heterocycle(C₁₋₅)alkyl, and

t. C_{3-6} cycloalkyl,

wherein said phenyl(C_{1-5})alkyl, C_{6-10} aryl, heteroaryl, heterocycle, heterocycle(C_{1-5})alkyl or C_{3-6} cycloalkyl is substituted with one of the following: C_{1-5} alkylthio, C_{1-5} alkylsulfonyl, methoxy, hydroxy, dimethylamino or methylamino,

u. the tetradentate metal ligand moiety having the following formula:



wherein, R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{25} , R^{26} , R^{27} , R^{28} and R^{29} are independently selected from the group consisting of hydrogen, halogen, C_{1-5} alkyl, cyano, carboxy(C_{1-5})alkyl, hydroxy(C_{1-5})alkyl, trifluoromethyl, nitro, methylamino, dimethylamino, halo(C_{1-5})alkyl, phenyl(C_{1-5})alkyl, C_{3-6} cycloalkyl, heterocycle (C_{1-5})alkyl and carbonyl, and R^P is a sulphydryl protecting group,

R^7 and R^8 in each instance is independently selected from the group consisting of hydrogen, hydroxy, C_{1-5} alkyl, C_{1-5} alkoxy, halogen, carboxy(C_{1-5})alkyl, trifluoromethyl, and halo(C_{1-5})alkyl, phenyl(C_{1-5})alkyl, C_{3-6} cycloalkyl, heterocycle(C_{1-5})alkyl, or R^7 and R^8 can be taken together to form a carbonyl,

and,

X' is ^{125}I , ^{123}I , ^{131}I , ^{18}F , ^{76}Br , ^{77}Br or $Sn(alkyl)_3$.

11. (Original) A compound of claim 10, wherein
 R^9 is hydrogen.

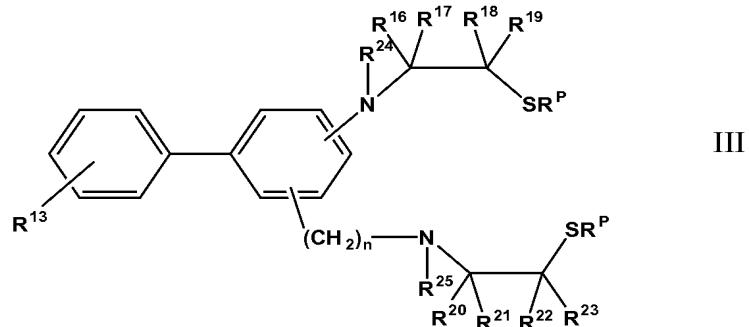
12. (Original) A compound of claim 11, wherein
R⁷ and R⁸ in each instance is independently selected from the group consisting of
hydrogen, hydroxyl, C₁₋₅ alkyl, halogen, and halo(C₁₋₅)alkyl, or R⁷ and R⁸ can be taken
together to form a carbonyl.

13. (Original) A compound of claim 12, wherein
 R^{10} is selected from the group consisting of cyano, nitro and $NR^{11}R^{12}$, wherein
 R^{11} and R^{12} are independently hydrogen or C_{1-5} alkyl,
and,
 R^7 and R^8 are independently hydrogen or hydroxyl.

14. (Original) A compound of claim 13, wherein
 R^{10} is $NR^{11}R^{12}$, wherein
 R^{11} and R^{12} are independently hydrogen, methyl or ethyl,
and,
 R^7 and R^8 are both hydrogen.

15. (Original) The compound of claim 14, wherein X' is ^{123}I or ^{18}F .

16. (Original) A compound of general Formula III:



or a pharmaceutically acceptable salt thereof, wherein:

n is zero or one,

R^{13} is selected from the group consisting of:

- a. C_{1-5} alkyl,
- b. cyano,
- c. trifluoromethyl,
- d. nitro,
- e. halo(C_{1-5})alkyl,
- f. C_{1-5} alkylthio,
- g. halogen,
- h. halo(C_{1-5})alkoxy,
- i. carboxy(C_{1-5})alkyl,
- j. hydroxy,
- k. hydroxy(C_{1-5})alkyl,
- l. C_{1-5} alkoxy,
- m. $NR^{14}R^{15}$, wherein

R^{14} and R^{15} are independently hydrogen, halo(C_{1-5})alkyl or C_{1-5} alkyl,

- n. phenyl(C_{1-5})alkyl,
- o. C_{6-10} aryl,
- p. heteroaryl,
- q. heterocycle,
- r. heterocycle(C_{1-5})alkyl, and
- s. C_{3-6} cycloalkyl,

wherein said phenyl(C_{1-5})alkyl, C_{6-10} aryl, heteroaryl, heterocycle, heterocycle(C_{1-5})alkyl or C_{3-6} cycloalkyl is substituted with one of the following: C_{1-5} alkylthio, C_{1-5} alkylsulfonyl, methoxy, hydroxy, dimethylamino or methylamino,

R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} in each instance is independently selected from the group consisting of hydrogen, halogen, C_{1-5} alkyl, cyano, carboxy(C_{1-5})alkyl, hydroxy(C_{1-5})alkyl, trifluoromethyl, nitro, methylamino, dimethylamino, halo(C_{1-5})alkyl, phenyl(C_{1-5})alkyl, C_{3-6} cycloalkyl, heterocycle, heteroaryl, C_{6-10} aryl, (C_{1-5})alkyl and carbonyl,

and,

R^P is a sulfhydryl protecting group.

17. (Original) A compound of claim 16, wherein
 R^{13} is $NR^{14}R^{15}$, wherein
 R^{14} and R^{15} are independently hydrogen or C_{1-5} alkyl.

18. (Original) A compound of claim 17, wherein
 n is one,
 R^{16} and R^{17} are both hydrogen or are taken together to form a carbonyl,
and,

R^{18} , R^{19} , R^{22} , R^{23} , R^{24} and R^{25} in each instance is independently selected from the
group consisting of hydrogen and C_{1-5} alkyl.

19. (Original) A compound of claim 18, wherein
 R^{16} , R^{17} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} are hydrogen,
and,

R^{18} and R^{19} are both C_{1-5} alkyl.

20. (Original) A compound of claim 18, wherein
 R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{24} and R^{25} are hydrogen,
and,

R^{22} and R^{23} are both C_{1-5} alkyl.

21. (Original) A compound of claim 18, wherein
 R^{16} and R^{17} are taken together to form a carbonyl.

22. (Original) A compound of claim 21, wherein
 R^{18} and R^{19} are both C_{1-5} alkyl,

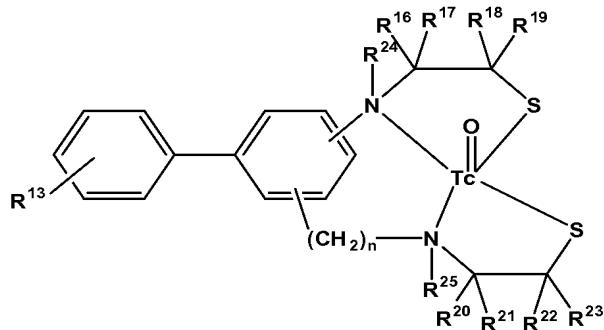
and,

R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} are hydrogen.

23. (Original) A compound of claim 21, wherein R¹⁸, R¹⁹, R²⁰, R²¹, R²⁴ and R²⁵ are hydrogen, and, R²² and R²³ are both C₁₋₅ alkyl.

24. (Original) A compound of claim 21, wherein R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴ and R²⁵ are hydrogen.

25. (Previously Presented) A radioisotope complex of a compound of claim 18 having the Formula:



provided that one of R²⁴ and R²⁵ is selected from the group consisting of:

- a. hydrogen,
- b. C₁₋₅ alkyl,
- c. trifluoromethyl,
- d. halo(C₁₋₅)alkyl,
- e. carboxy(C₁₋₅)alkyl,
- f. phenyl(C₁₋₅)alkyl,
- g. C₆₋₁₀ aryl,
- h. heteroaryl,
- i. heterocycle,
- j. heterocycle(C₁₋₅)alkyl, and
- k. C₃₋₆ cycloalkyl,

wherein said phenyl(C₁₋₅)alkyl, C₆₋₁₀ aryl, heteroaryl, heterocycle, heterocycle(C₁₋₅)alkyl or C₃₋₆ cycloalkyl is substituted with one of the following: C₁₋₅ alkylthio, C₁₋₅ alkylsulfonyl, methoxy, hydroxy, dimethylamino or methylamino,
the other of R²⁴ and R²⁵ represents an unsubstituted position.

26. (Original) A complex of claim 25, wherein

R¹³ is NR¹⁴R¹⁵, wherein

R¹⁴ and R¹⁵ are independently hydrogen or C₁₋₅ alkyl,
R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰ and R²¹ are hydrogen,
R²⁴ and R²⁵ are hydrogen or unsubstituted,

and,

R²² and R²³ are both C₁₋₅ alkyl.

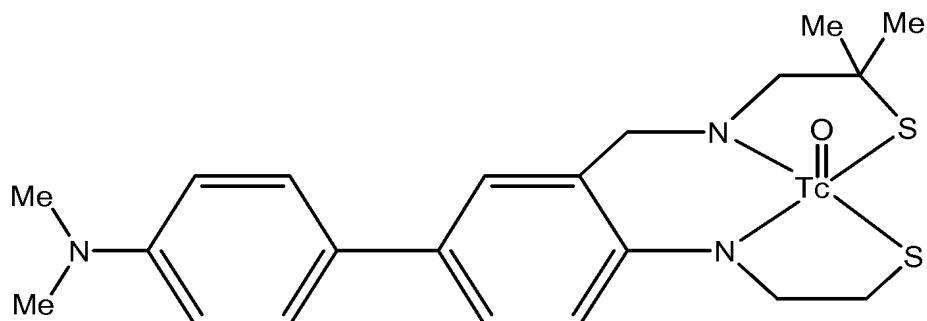
27. (Original) The complex of claim 26, wherein

R¹⁴ and R¹⁵ are independently hydrogen or methyl,
R²⁴ and R²⁵ are unsubstituted,

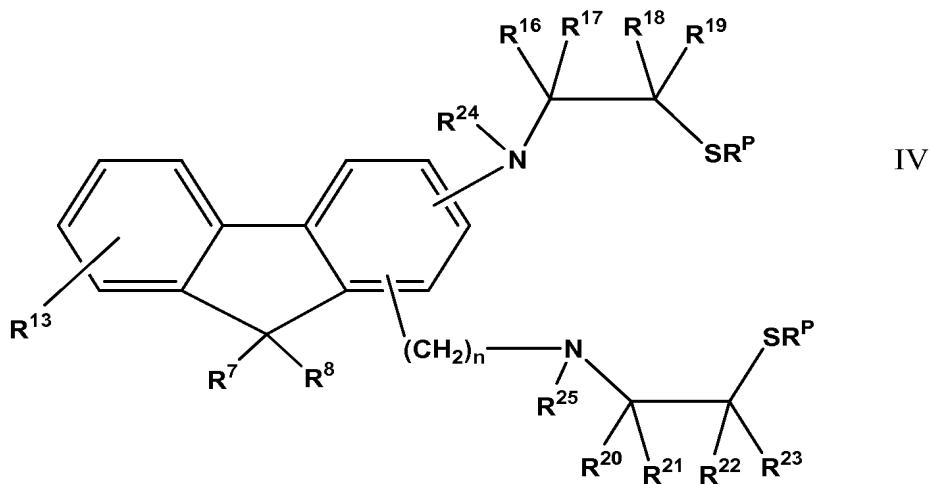
and,

R²² and R²³ are both methyl.

28. (Previously Presented) The complex of claim 27 having the following structure:



29. (Original) A compound of general Formula IV:



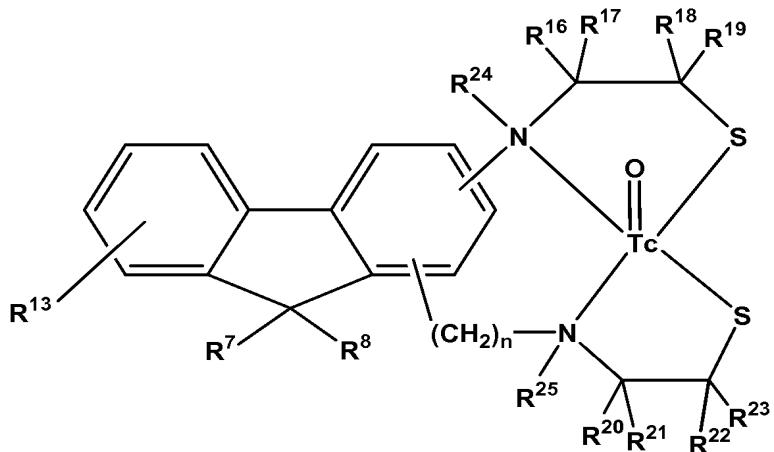
or a pharmaceutically acceptable salt thereof, wherein:

R^{13} , R^P , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} are as described for Formula III,

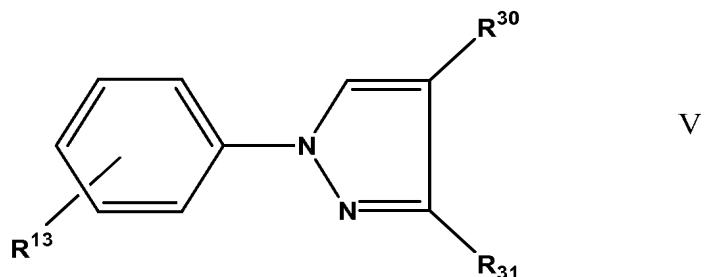
and,

R^7 and R^8 are as described for Formula II.

30. (Previously Presented) A radioisotope complex of a compound of claim 29 having the Formula:



31. (Original) A compound of general Formula V:



or a pharmaceutically acceptable salt thereof, wherein:

R¹³ is selected from the group consisting of:

- a. C₁₋₅ alkyl,
- b. cyano,
- c. trifluoromethyl,
- d. nitro,
- e. halo(C₁₋₅)alkyl,
- f. C₁₋₅ alkylthio,

- g. halogen,
- h. halo(C₁₋₅)alkoxy,
- i. carboxy(C₁₋₅)alkyl,
- j. hydroxy,
- k. hydroxy(C₁₋₅)alkyl,
- l. C₁₋₅ alkoxy,
- m. NR¹⁴R¹⁵, wherein

R¹⁴ and R¹⁵ are independently hydrogen, halo(C₁₋₅)alkyl or C₁₋₅ alkyl,

- n. phenyl(C₁₋₅)alkyl,
- o. C₆₋₁₀ aryl,
- p. heteroaryl,
- q. heterocycle,
- r. heterocycle(C₁₋₅)alkyl, and
- s. C₃₋₆ cycloalkyl,

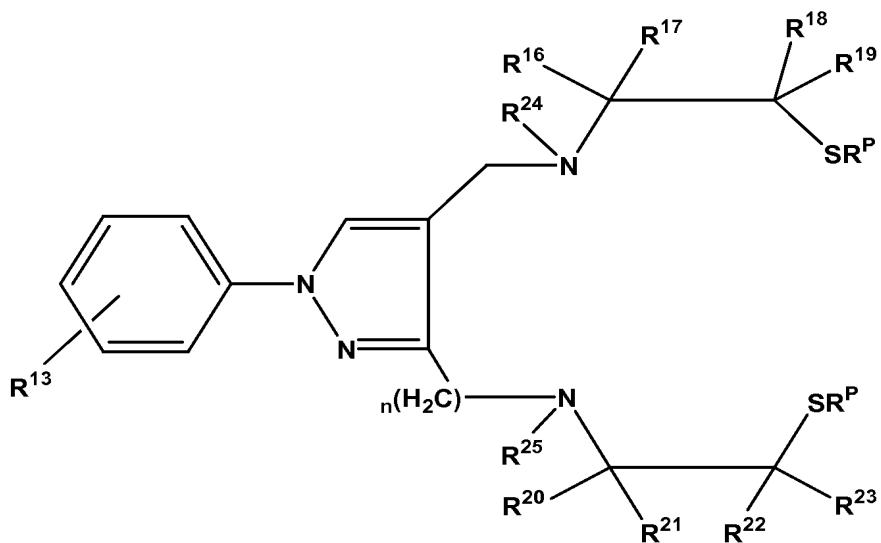
wherein said phenyl(C₁₋₅)alkyl, C₆₋₁₀ aryl, heteroaryl, heterocycle, heterocycle(C₁₋₅)alkyl or C₃₋₆ cycloalkyl is substituted with one of the following: C₁₋₅ alkylthio, C₁₋₅ alkylsulfonyl, methoxy, hydroxy, dimethylamino or methylamino,

and,

R³⁰ and R³¹ are selected from the group consisting of hydrogen, hydroxy, hydroxy(C₁₋₅)alkyl, C₁₋₅ alkyl, C₁₋₅ alkoxy, (C₁₋₅)alkyl carboxy, halogen, carboxy(C₁₋₅)alkyl, trifluoromethyl, and halo(C₁₋₅)alkyl, phenyl(C₁₋₅)alkyl, C₃₋₆ cycloalkyl, heterocycle(C₁₋₅)alkyl,

provided,

if R¹³ is other than NR¹⁴R¹⁵, wherein one of R¹⁴ and R¹⁵ is ¹⁸Fluoro(C₁₋₅)alkyl, then one of R³⁰ and R³¹ is selected from the group consisting of ¹²⁵I, ¹²³I, ¹³¹I, ¹⁸F, ⁷⁶Br, ⁷⁷Br and ¹⁸Fluoro(C₁₋₅)alkyl.



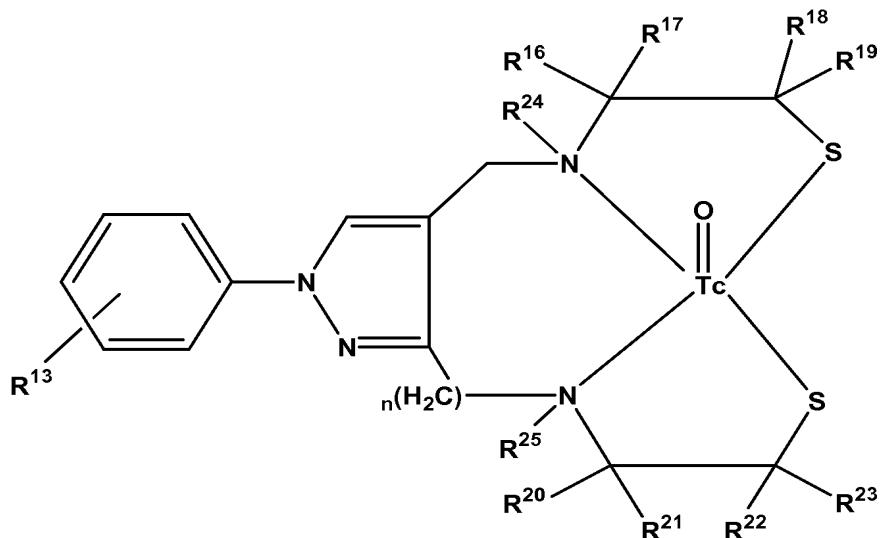
or a pharmaceutically acceptable salt thereof, wherein:

R^{13} is as described for Formula V,

and,

R^P , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} are as described for Formula III.

33. (Original) A radioisotope complex of a compound of claim 32 having the Formula:



34. (Previously Presented) A pharmaceutical composition comprising a compound of any one of claims 1, 10 and 31.

35. (Previously Presented) A diagnostic composition for imaging amyloid deposits, comprising a radiolabeled compound of any one of claims 1, 10 and 31; and a pharmaceutically acceptable excipient or diluent.

36. (Original) A method of imaging amyloid deposits, comprising:

- introducing into a mammal a detectable quantity of a diagnostic composition of claim 35; and
- allowing sufficient time for the labeled compound to be associated with amyloid deposits; and
- detecting the labeled compound associated with one or more amyloid deposits.